

Title (en)

A METHOD AND SYSTEM FOR BALANCING A BATTERY PACK

Title (de)

VERFAHREN UND SYSTEM ZUM AUSGLEICHEN EINES BATTERIEPACKS

Title (fr)

PROCÉDÉ ET SYSTÈME D'ÉQUILIBRAGE D'UN BLOC-BATTERIE

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Application

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Abstract (en)

[origin: WO2017008846A1] The invention relates to a method for balancing a battery pack (7a) comprising a plurality of battery cells (C1-C3) connected in series, wherein each battery cell (C1-C3) is associated with a resistor (R1-R3) which is connected in parallel with said battery cell (C1-C3) and wherein each of said resistors (R1-R3) is coupled in series with a controllable switch (S1-S3) which is connected to a control unit (8). The method comprises: selectively closing and opening said switch (S1-S3) so as to initiate discharging of the corresponding battery cell (C1-C3); thereby balancing said battery cell (C1-C3) in relation to other cells of said battery pack (7a). Furthermore, the method comprises the steps of: a) defining (15) a control variable (u) indicating, for each switch (S1-S3), an open or closed condition; b) determining a cost based at least on the current losses of the battery pack (7a) resulting from said switch (S1-S3) being controlled according to said control variable; c) repeating steps a) and b) a predefined number of times; d) selecting (16) a control variable which results in said cost being minimized; and e) initiating (17) said balancing based on the selected control variable. The invention also relates to a system for balancing a battery pack (7a).

IPC 8 full level

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